March 11, 2003
1420 East 6th Ave.
P.O. Box 200701
Helena, MT 59620-0701

Environmental Quality Council
Montana Department of Environmental Quality
Montana Department of Fish, Wildlife and Parks
Fisheries Division
Endangered Species Coordinator
Native Species Coordinator, Fisheries Office
Missoula Office
Montana State Library, Helena
MT Environmental Information Center
Montana Audubon Council
Bitterroot Conservation District
U.S. Army Corp of Engineers, Helena
U.S. Fish and Wildlife Service, Helena
State Historic Preservation Office, Helena
Bitterroot Chapter Trout Unlimited
Daly Ditches Irrigation District, 566 Tammany Lane, Hamilton, MT 59840

Ladies and Gentlemen:

Please find enclosed an Environmental Assessment prepared for the Future Fisheries Improvement Program. The Program tentatively plans to provide funding to a project calling for the construction of two siphons where the Hedge and Republican canals cross Skalkaho Creek. The intent of the project is to reduce entrainment of downstream migrating juvenile fish into the canal systems and increase the return of spawning adults. These proposed projects are located on Skalkaho Creek near the town of Hamilton in Ravalli County.

Please submit any comments that you have by 5:00 P.M., April 14, 2003 to the Department of Fish, Wildlife and Parks in Helena at the address listed above. Completion of this project is contingent upon approval being granted by the Fish, Wildlife and Parks Commission. If you have any questions, feel free to contact me at (406) 444-2432. Please note that this draft EA will be considered as final if no substantive comments are received by the deadline listed above.

Sincerely,

Mark Lere, Program Officer
Habitat Protection Bureau
Fisheries Division
Email: mlere@state.mt.us

ENVIRONMENTAL ASSESSMENT

Fisheries Division
Montana Fish, Wildlife and Parks
Skalkaho Creek Hedge and Republican Canal Siphon Projects

General Purpose: The 1995 Montana Legislature enacted statute 87-1-272 through 273 which directs the Department to administer a Future Fisheries Improvement Program. The program involves providing funding for physical projects to restore degraded fish habitat in rivers and lakes for the purpose of improving wild fisheries. The legislature established an earmarked funding account to help accomplish this goal. Additionally, the 1999 Montana Legislature amended statute sections 87-1-273, 15-38-202 and Section 5, Chapter 463, Laws of 1995 to create a bull trout and cutthroat trout enhancement program. The program calls for the enhancement of bull trout and cutthroat trout through habitat restoration, natural reproduction and reductions in species competition by way of the Future Fisheries Program.

The Future Fisheries Improvement Program is proposing to provide funding for a project calling for the construction of two siphons where the Hedge and Republican canals cross Skalkaho Creek. The intent of this project is to restore connectivity between the Bitterroot River and Skalkaho Creek for migratory fish, especially westslope cutthroat trout, a species of special concern in Montana. The Hedge and Republican canals are large ditches (150 cubic feet per second) that divert water from the Bitterroot River. Currently, flow from these two canals merge with Skalkaho Creek, allowing canal water to freely mix with Skalkaho Creek. Weirs with control structures located on Skalkaho Creek are then used to allocate water down channel or down canal. Installation of siphons would maintain a separation of canal and creek water and would allow migrating fish to pass unimpeded down Skalkaho Creek. The project sites are located approximately 1 and 2 miles upstream of the mouth of Skalkaho Creek near the town of Hamilton in Ravalli County (Attachment 1).

I. Location of Project: This project will be conducted on Skalkaho Creek located approximately 3 miles south of the town of Hamilton in Ravalli County. The location of the Hedge Canal siphon is within Township 5 North, Range 20 West, Section 8. The location of the Republican Canal siphon is within Township 5 North, Range 20 West, Section 7.

II. Need for the Project: One goal within Montana Fish, Wildlife and Parks six year operations plan for the fisheries program is to "restore and enhance degraded habitats" by implementing habitat restoration projects and administering the Future Fisheries Improvement Program to restore important habitats on public and private lands. This proposed project would help meet this goal.

Watershed restoration efforts in the Bitterroot drainage have identified Skalkaho Creek as a top priority due to the stream's outstanding fisheries values. Skalkaho Creek supports resident bull trout, resident and fluvial westslope cutthroat trout, as well as populations of brook trout, brown trout, mountain whitefish and slimy sculpin. Currently, there are five major diversions and associated control structures on Skalkaho Creek that create passage and entrainment barriers that, in effect, disconnect fish migration between the stream and the Bitterroot River. A first phase of restoring migratory connectivity, involving the installation of self-cleaning fish screens on three of the diversions, has been funded presently is underway. This proposed second phase

calls for restoring migratory connectivity by installing siphons on two large canals that cross Skalkaho Creek. The intent of this project is to decrease entrainment of downstream migrating juvenile fish and increase the return of spawning adults. Completion of this project would result in the removal of all of the major sources of fish entrainment on Skalkaho Creek.

III. Scope of the Project:

The project proposes to construct two canal siphons beneath Skalkaho Creek while maintaining the existing control structures on the creek. The siphons will be installed in locations where the Hedge and Republican canals cross Skalkaho Creek. The existing control structures will be maintained because water rights, at certain times, will continue to be diverted from Skalkaho Creek at these locations. Waste structures will be installed to maintain water delivery further down the creek and to drain the canals in case of emergency. Engineers from the U.S. Bureau of Reclamation have completed preliminary designs and cost estimates for these two siphons (Attachments 2 and 3). Preliminary designs at each canal crossing call for the installation of two 48-inch diameter pipes buried beneath about 4 feet of cover. Concrete thrust blocks will be used to prevent the pipes from becoming buoyant. The inlets are concrete transitions with trash racks. The waste structures would consist of two 30-inch diameter, double walled, high density polyethylene pipes. This project is expected to cost $735,939.00. Of this total, the Future Fisheries Improvement Program would be contributing up to $229,132.00. The U.S. Fish and Wildlife Service through the Fisheries Restoration and Irrigation Mitigation Act is contributing the remainder of the needed funding.

IV. Environmental Impact Checklist:

Please see attached checklist.

V. Explanation of Impacts to the Physical Environment

1. Terrestrial and aquatic life and habitats.

Removing two sources of fish entrainment from Skalkaho Creek by installing siphons on two large irrigation canals crossings will help restore connectivity to the Bitterroot River for westslope cutthroat trout and bull trout, as well as other species of fish. Eliminating entrainment into the irrigation systems on Skalkaho Creek is expected to increase the recruitment of salmonids to Skalkaho Creek and the Bitterroot River.

2. Water quantity, quality and distribution.

Short-term increases in turbidity will occur during project construction. Construction will be conducted during low flow when all of the stream discharge can be passed through a lined by-pass channel or pumped through a pipe. To minimize turbidity, operation of equipment in the stream channel will be minimized to the extent practicable. The Department of Environmental Quality will be contacted to determine narrative conditions required to meet short-term water quality standards and protect aquatic biota. A 124 permit (Stream Protection Act) will be obtained from the Missoula office of

Montana Fish, Wildlife and Parks and the U.S. Army Corp of Engineers will be contacted for requirements to meet the federal Clean Water Act (404 permit). The quantity of water withdrawn from Skalkaho Creek for irrigation purposes is not expected to change significantly following installation of the siphons, although withdrawals may be somewhat lessened due to improved efficiencies created by the siphons.

3. Geology and soil quality, stability and moisture.

Soils within the two project sites would be disturbed during the construction, but would quickly stabilize following proposed re-vegetation efforts. Re-vegetation efforts call for re-seeding disturbed areas with native grasses.

4. Vegetation cover, quantity and quality.

Vegetation and cover would be disturbed during the period of construction. Several woody shrubs would need to be removed to allow for the installation of the siphons. Proposed re-vegetation efforts would act to mitigate these disturbances.

5. Aesthetics.

Aesthetics would be adversely impacted during construction due to ground disturbance and the presence of heavy equipment. In the long term, aesthetics would not be adversely affected.

7. Unique, endangered, fragile, or limited environmental resources.

The crossing of the Hedge and Republican canals over Skalkaho Creek currently act to entrain downstream migrating fish into the irrigation systems where they a lost to the population. Installation of the siphons will eliminate entrainment of fish into these canal systems and will increase the return of spawning adults. Skalkaho Creek has been identified as a bull trout core area for the Bitterroot drainage. Because Skalkaho Creek supports bull trout, a species listed as threatened under the Endangered Species Act, the project will be included in Montana Fish, Wildlife and Parks Section 6 conservation plan with the U.S. Fish and Wildlife Service.

9. Historic and archaeological sites

This proposed project likely would require an individual Army Corp of Engineers 404 permit. Therefore, the State Historic Preservation Office has been contacted to determine the need for compliance with the federal historic preservation regulations. The project will not begin until a cultural clearance is granted.

VI. Explanation of Impacts on the Human Environment.

7. Access to & quality of recreational activities.

These proposed siphon projects are expected to increase the recruitment of salmonids to Skalkaho Creek and the Bitterroot River and are expected to improve the recreational fishery that these water bodies provide.

VII. Discussion and Evaluation of Reasonable Alternatives.

1. No Action Alternative

If no action is taken, the irrigation canals crossing Skalkaho Creek will continue to entrain downstream migrating juvenile fish and migratory connectivity to the Bitterroot River will continue to be diminished. As a result, the potential for recruitment of salmonids from the Skalkaho Creek drainage, especially westslope cutthroat trout and bull trout, will not be fully realized.

2. Install fish screens on the canals downstream of Skalkaho Creek

Self-cleaning fish screens could be installed on the irrigation canals downstream from their crossing with Skalkaho Creek to prevent the entrainment of fish. The cost for these screens would be similar to the cost of installing siphons. However, self-cleaning fish screens require a substantial amount of maintenance to keep them in a functional condition. The siphons, in contrast, would require a much reduced level of maintenance and would be equally effective in preventing the entrainment of fish.

3. The Proposed Alternative

The proposed alternative calls for installing siphons on the Hedge and Republican canals where the ditches cross Skalkaho Creek. The intent of the project is to decrease entrainment of downstream migrating juvenile fish into the canal system and increase the return of spawning adults. Installation of these siphons is part of a larger effort on Skalkaho Creek is to restore migratory connectivity to the Bitterroot River. This proposal is expected to improve recruitment of salmonids to Skalkaho Creek and the Bitterroot River and enhance the recreational fishery that these water bodies provide.

VIII. Environmental Assessment Conclusion Section

1. Is an EIS required? No.

We conclude from this review that the proposed activities will have a positive impact on the physical and human environment.

2. Level of public involvement.

The proposed project was reviewed and supported by the public review panel of the Future Fisheries Improvement Program. The proposed project also will be reviewed by the Fish, Wildlife and Parks Commission and will be contingent upon their approval. The Environmental Assessment (EA) is being distributed to

all individuals and groups listed on the cover letter. The EA will be published on Montana Fish, Wildlife and Parks webpage: fwp.state.mt.us

3. Duration of comment period?

   Public comment will be accepted through 5:00 PM on April 14, 2003.

4. Person responsible for preparing the EA.


   Mark Lere, Program Officer
   Habitat Protection Bureau
   Fisheries Division
   Montana Department of Fish, Wildlife and Parks
   1420 East 6th Avenue
   Helena, MT 59620

   Telephone: (406) 444-2432
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**MONTANA DEPARTMENT OF FISH, WILDLIFE AND PARKS**
1420 E 6th Ave, PO BOX 200701, Helena, MT 59620-0701
(406) 444-2535

# ENVIRONMENTAL ASSESSMENT

Project Title Skalkaho Creek Hedge and Republican Canal Siphon Project

Division/Bureau Fisheries Division -Future Fisheries Improvement
Description of Project The Future Fisheries Improvement Program is proposing to provide funding for a project calling for the construction of two siphons on the Hedge and Republican irrigation canals as they cross Skalkaho Creek. The intent of the project is to reduce the entrainment of downstream migrating juvenile fish and increase the return of spawning adults. The project site is located on Skalkaho Creek near the town of Hamilton in Ravalli County.

POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

| | MAJOR | MODERATE | MINOR | NONE | UNKNOWN | COMMENTS ON ATTACHED PAGES |
|---|---|---|---|---|---|---|
| 1. Terrestrial & aquatic life and habitats | | | X | | | X |
| 2. Water quality, quantity & distribution | | | X | | | X |
| 3. Geology & soil quality, stability & moisture | | | X | | | X |
| 4. Vegetation cover, quantity & quality | | | X | | | X |
| 5. Aesthetics | | | X | | | X |
| 6. Air quality | | | | X | | |
| 7. Unique, endangered, fragile, or limited environmental resources | | | X | | | X |
| 8. Demands on environmental resources of land, water, air & energy | | | | X | | |
| 9. Historical & archaeological sites | | | | X | | X |

POTENTIAL IMPACTS ON THE HUMAN ENVIRONMENT

| | MAJOR | MODERATE | MINOR | NONE | UNKNOWN | COMMENTS ON ATTACHED PAGES |
|---|---|---|---|---|---|---|
| 1. Social structures & mores | | | | X | | |
| 2. Cultural uniqueness & diversity | | | | X | | |
| 3. Local & state tax base & tax revenue | | | | X | | |
| 4. Agricultural or industrial production | | | | X | | |
| 5. Human health | | | | X | | |
| 6. Quantity & distribution of community & personal income | | | | X | | |
| 7. Access to & quality of recreational and wilderness activities | | | X | | | X |
| 8. Quantity & distribution of employment | | | | X | | |
| 9. Distribution & density of population & housing | | | | X | | |
| 10. Demands for government services | | | | X | | |
| 11. Industrial & commercial activity | | | | X | | |
| 12. Demands for energy | | | | X | | |
| 13. Locally adopted environmental plans & goals | | | | X | | |
| 14. Transportation networks & traffic flows | | | | X | | |

Other groups or agencies contacted or which may have overlapping jurisdiction Bitterroot Conservation District, US Fish and Wildlife Service, US Army Corp of Engineers, Montana Department of Environmental Quality, State Historic Preservation Office

Individuals or groups contributing to this EA Chris Clancy, Montana Fish, Wildlife and Parks; Bill Good, consultant

Recommendation concerning preparation of EIS No EIS required.

EA prepared by: Mark Lere
Date: February 20, 2003